

**U.S. DEPARTMENT OF ENERGY  
OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT**

**OFFICE OF QUALITY ASSURANCE**

**AUDIT REPORT BSC-ARC-02-05**

**OF**

**BECHTEL SAIC COMPANY, LLC**

**WASHINGTON, DC**

**MARCH 5 – 8, 2002**

**Prepared by:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**James V. Voigt  
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Navarro Quality Services**

**Approved by:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Ram Murthy  
Acting Director  
Office of Quality Assurance**

## 1.0 EXECUTIVE SUMMARY

As a result of Quality Assurance (QA) Audit BSC-ARC-02-05, the audit team determined that Bechtel SAIC Company, LLC (BSC) located in Washington, D.C. is satisfactorily and effectively implementing the applicable portions of the U.S. Department of Energy (DOE), Office of Civilian Radioactive Waste Management (OCRWM) QA Program in accordance with DOE/RW-0333P, Revision 10, *Quality Assurance Requirements and Description* (QARD), OCRWM program procedures and BSC implementing procedures.

The audit team identified one condition adverse to quality that was corrected during the audit (CDA) prior to the post-audit meeting as described in paragraph 5.5.4. There were no Deficiency Reports (DR) or recommendations initiated as a result of this audit.

Two areas of exemplary performance were recognized: 1) The Action Tracking Report, used to monitor work commitments, is very successful in tracking and maintaining assignment dates; and 2) The local QA Representative and the Requirements Analysis Group in the Program Integration Department were very well organized and helpful in support of the audit process.

In addition, the effectiveness of corrective actions related to a previously closed DR was evaluated with satisfactory results. The details are described in paragraph 5.5.5.

## 2.0 SCOPE

Auditors representing the DOE's Office of Quality Assurance (OQA) conducted a compliance audit to evaluate implementation of the OCRWM QA Program as described in the QARD and applicable implementing procedures at the BSC-Washington, D.C. facility.

The audit team, through interviews of cognizant personnel, reviews of documentation, and evaluation of procedures, assessed implementation, adequacy, and effectiveness of BSC's implementation of the QA program.

The audit team also reviewed the status of a recently closed OCRWM deficiency document to determine the effectiveness of completed corrective actions.

In accordance with the approved audit plan, the following QA program sections were evaluated:

### **QA PROGRAM SECTIONS**

1.0	Organization
2.0	Quality Assurance Program
4.0	Procurement Document Control

### **QA PROGRAM SECTIONS (Cont)**

5.0	Implementing Documents
6.0	Document Control
7.0	Control of Purchased Items and Services
16.0	Corrective Action
17.0	Quality Assurance Records
Supplement I	Software
Supplement III	Scientific Investigation
Supplement V	Control of the Electronic Management of Data

The following QA program sections were not evaluated, as BSC-Washington, DC is currently not implementing these sections:

3.0	Design Control
8.0	Identification and Control of Items
9.0	Control of Special Processes
10.0	Inspection
11.0	Test Control
12.0	Control of Measuring and Test Equipment
13.0	Handling, Storage, and Shipping
14.0	Inspection, Test, and Operating Status
15.0	Nonconformances
18.0	Audits
Supplement II	Sample Control
Supplement IV	Field Surveying
Appendix A	High-Level Waste Form Production
Appendix B	Storage and Transportation
Appendix C	Monitored Geologic Repository (limited to Purchased Items and Expert Elicitation)

### **3.0 AUDIT TEAM AND OBSERVERS**

The following is a list of audit team members and their assigned areas of responsibility:

<b><u>Name/Title/Organization</u></b>	<b><u>QA Program Sections</u></b>
James V. Voigt, Audit Team Leader, Navarro Quality Services (NQS)	Sections 1, 16 and 17
Lester W. Wagner, Auditor, NQS	Sections 2 and 5
F. Harvey Dove, Auditor, NQS	Sections 4, 6 and 7
John R Doyle, Auditor, NQS	Supplement I, III and V

No observers participated during the conduct of this audit.

#### **4.0 AUDIT TEAM MEETINGS AND PERSONNEL CONTACTED**

The pre-audit meeting was held at the BSC-Washington, D.C. (BSC-East) office in L'Enfant Plaza on March 5, 2002. Daily debriefings were held to apprise BSC management and staff of the progress of the audit and any conditions adverse to quality. The audit was concluded with a post-audit meeting held on March 8, 2002 at the BSC-East office.

Personnel contacted during the audit, including those who attended the pre- and post-audit meetings, are listed in Attachment 1, "Personnel Contacted During the Audit."

#### **5.0 SUMMARY OF AUDIT RESULTS**

##### **5.1 Program Effectiveness**

The audit team concluded that overall, BSC's implementation of the QA program is adequate and effective with the exception noted in Section 5.5. The results for each QA program section evaluated are contained in Attachment 2, "Summary Table of Audit Results."

Two areas of exemplary performance were recognized: 1) The Action Tracking Report (used to monitor work commitments, Rapid Response actions and resource allocations) is well designed for monitoring overall action status and its implementation is very successful in tracking and maintaining client completion dates; and 2) The Requirements Analysis Group in the Program Integration Department were very well organized and their knowledge and dedication were most helpful in the smooth flow of information in support of the audit process. In concert with this, the local QA representative was also extremely helpful in support of the audit team and in coordinating contacts.

##### **5.2 Stop Work or Immediate Corrective Actions Taken**

There were no Stop Work Orders or immediate corrective actions initiated as a result of the audit.

##### **5.3 QA Program Implementation**

Attachment 2, "Summary Table of Audit Results," provides results for each QA program section audited. The details of the audit, including the objective evidence reviewed, are documented in the audit checklist. The checklist is maintained as a QA record.

##### **5.4 Technical Audit Activities**

There were no technical activities evaluated during this audit.

## **5.5 Summary of Conditions Adverse to Quality**

The audit team identified one condition adverse to quality during the audit. This condition adverse to quality was CDA prior to the post-audit meeting. Details of the CDA are provided in Section 5.5.4.

### **5.5.1 Corrective Action Requests**

None.

### **5.5.2 Deficiency Reports**

None.

### **5.5.3 Deficiency Identification and Referrals**

None.

### **5.5.4 Deficiencies Corrected During the Audit**

Technical Work Plan (TWP) TWP-CRW-MD-000001, Revision 0, Addendum D, *Civilian Radioactive Waste Management System Requirements Document* was updated and signed off in December 2001. This work plan and review documents were assembled as a records package for submittal to the Records Processing Center (RPC); however the work plan was not forwarded to Document Control for updating the OCRWM Program Documents database. Consequently, the OCRWM Program Documents database contained an obsolete revision to the TWP (Revision 0, Addendum B – issued with an effective date of 9/15/2000). Revision 1 to the TWP was initiated during the audit and has been posted on the OCRWM Program Documents database. This was considered an isolated case since no other occurrence was noted and BSC-East is the only office that uses this TWP.

### **5.5.5 Follow-up of Previously Issued Deficiency Documents**

One DR, LVMO-00-D-114, was evaluated for effectiveness of corrective action.

DR LVMO-00-D-114 – concerned nonconforming actions relative to procedure AP-17.1Q, Revision 1, ICN 1, *Record Source Responsibilities for Inclusionary Records*, and the failure to submit a records package to the RPC within the required submittal period. During the audit a sample records package was selected and records were verified to have been submitted in a timely manner.

## **6.0 RECOMMENDATIONS**

No recommendations were documented for BSC management consideration:

## **7.0 List of Attachments**

Attachment 1 - PERSONNEL CONTACTED DURING THE AUDIT

Attachment 2 - SUMMARY TABLE OF AUDIT RESULTS

Attachment 3 - ACRONYMS/ABBREVIATIONS

## ATTACHMENT I

### PERSONNEL CONTACTED DURING THE AUDIT

Name	Organization/Title	Pre-Audit Meeting	Contacted During Audit	Post-Audit Meeting
Mark Senderling	DOE-RW-46/Acting Director Office of Acceptance, Transportation & Integration	x		
Markas Papa	DOE-RW-44/General Engineer	x		x
David Siefken	BSC-East/Supervisor Program Integration	x	x	x
Ed Benz	JAI-BSC-East/Senior Engineer – Lead Program Integration	x	x	x
Cornelius Hawk	BSC-East/Supervisor Program Controls and Operations	x	x	
Robert Stifel	BSC-East/Supervisor Information Technology	x		x
Gladys Ruffin	BSC-East/Lead Records System	x	x	x
Don Pearman	BSC/Deputy General Manager	x		
James George	BSC-East/Quality Assurance	x	x	x
German Reyes	JKA-BSC-East/Senior Engineer Program Integration	x	x	x
Collin Moller	BSC-East/Manager Strategic Planning and Program Integration	x	x	x
Thomas Swift	BSC-East/Senior Engineer Program Integration	x	x	x
Shirl Derby	BSC/Staff Commitments Management	x*		x*
Carl Weber	DOE/QA Specialist			x
D. Elise-Brown	BSC-East/Staff Records System		x	
Larry Saraka	BSC-East/Lead Program Integration		x	
Scott Gillespie	BSC-East/Lead Engineer Program Integration		x	
Selena Nobles	BSC-East/Operations Support Staff		x	
Sam Archuleta	NQS/QA Specialist - Software		x	
Tim Sweeney	BSC-East/Systems Integration		x	
Dean Kunihiro	BSC/Resource Management		x*	
Terry Rathgeb	BSC/Management Administrative Support		x*	

\* Participated via teleconference.

## ATTACHMENT 2

### SUMMARY OF AUDIT RESULTS

QA Section Activities	Document Reviewed	Checklist Pages Reference	Deficiencies /DIR	CDA	REC	Program Adequacy	Procedure Compliance	Overall
1.0	AP-1.0Q-BSC, R 1, ICN 0	Pgs. 1-6				SAT	SAT	SAT
2.0	AP-2.1Q, R 2, ICN 0 AP-2.2Q, R 1, ICN 0 AP-2.12Q, R 0, ICN 3 AP-2.20Q, R 1, ICN 0 AP-2.21Q, R 1, BSCN 1	Pg. 7-11 Pgs. 12-13 Pg. 14 Pgs. 15-18 Pgs. 19-21		1		SAT	SAT	SAT
4.0	LP-4.1Q-OCRWM, R 2, ICN 0	Pg. 22				SAT	NI	SAT
5.0	AP-5.1Q, R 3, ICN 0	Pgs. 23-26				SAT	SAT	SAT
6.0	AP-6.1Q, R 6, ICN 3 AP-6.28Q, R 0, ICN 0, BSCN 1	Pgs. 27-29 Pgs. 30-32				SAT	SAT	SAT
7.0	LP-4.1Q-OCRWM, R 2, ICN 0	Pgs. 33				SAT	NI	SAT
16.0	AP-16.1Q, R 4, ICN 1	Pg. 34				SAT	SAT	SAT
17.0	AP-17.1Q, R 2, ICN 2	Pgs. 35-38				SAT	SAT	SAT
SUPP I	AP-SI.1Q, R 3, ICN 3	Pgs. 39-46				SAT	NI	SAT
SUPP III	AP-3.12Q, R 1, ICN 0 AP-SIII.1Q, R 1, ICN 1 AP-SIII.10Q, R 0, ICN 1	Pgs. 47-52 Pgs. 53-59 Pgs. 60-69				SAT	NI	SAT
SUPP V	AP-SV.1Q, R 0, ICN 2	Pgs. 70-72				SAT	NI	SAT
TOTAL	PAGES = 72		DRs/ DIR	CDA	REC	OVERALL - SATISFACTORY		

LEGEND:    CDA            Corrected During the Audit  
               NI                No Implementation  
               DIR                Deficiency Identification and Referral  
               DR                Deficiency Report  
               REC                Recommendation  
               SAT                Satisfactory  
               UNSAT            Unsatisfactory



### ATTACHMENT 3

#### ACRONYMS / ABBREVIATIONS

AP	Administrative Procedure
BSC	Bechtel SAIC Company, LLC
BSC-East	Bechtel SAIC Company, LLC, Washington, D.C.
CDA	Corrected During the Audit
DIR	Deficiency Identification and Referral
DOE	U.S. Department of Energy
DR	Deficiency Report
ICN	Interim Change Notice
NI	No Implementation
NQS	Navarro Quality Services
OCRWM	Office of Civilian Radioactive Waste Management
OQA	Office of Quality Assurance
QA	Quality Assurance
QARD	Quality Assurance Requirements and Description
REC	Recommendations
RPC	Records Processing Center
SAT	Satisfactory
TWP	Technical Work Plan
UNSAT	Unsatisfactory